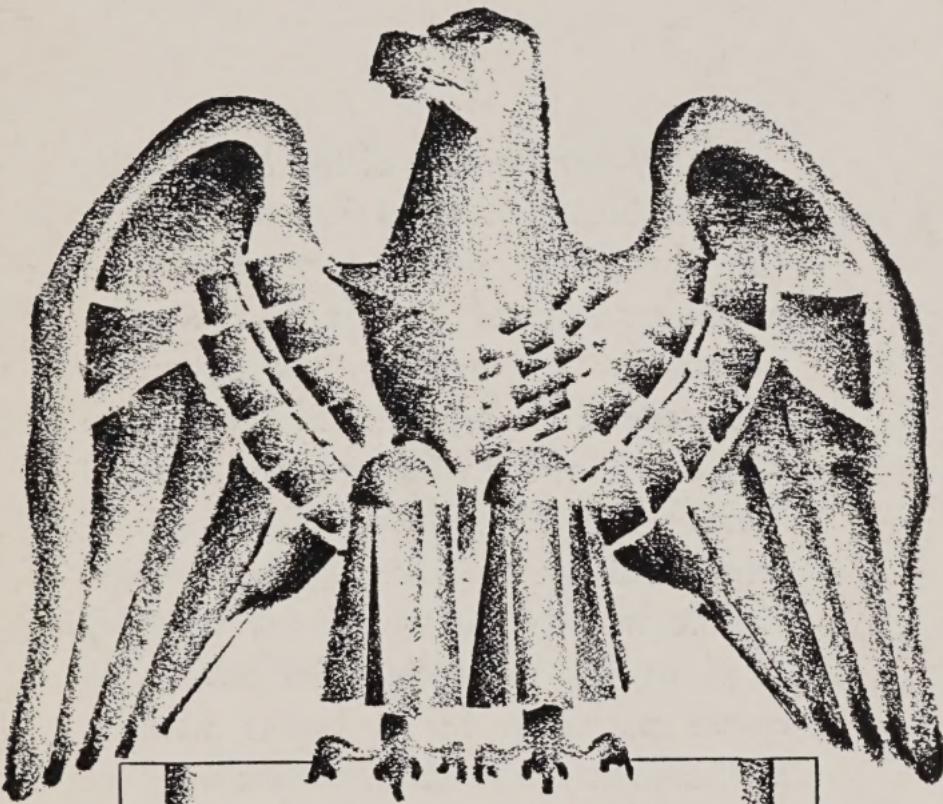


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N. Johnson

GUARDING A HERITAGE



"Soil, water,
minerals, vegetable
and animal life--
these are the basis
of our existence
and the measure
of our future."

JUL 27 1943

LJR

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Eighty-five percent of the land in the United States is used for agriculture. On this great area is produced an enormous crop of wildlife. Eighty-five percent of all hunting, for example, takes place on agricultural lands, and 70 percent of the wild fur crop is caught there. The methods of using agricultural land are therefore of tremendous significance to the welfare of wildlife. If plans for agriculture include adequate provision for a better wildlife environment, substantial returns may be expected in increased numbers of birds, animals, and fish. To neglect the better use of our agricultural lands is to overlook the greatest opportunity we have for restoring wildlife in this Nation.¹

¹ Sears, Paul B. *THIS IS OUR WORLD.* 292 pp. Norman, Okla., 1937. See pp. 285-86.



GUARDING A HERITAGE

To many people, it is still a new thought that land can wear out. Farmers have known it for as long as farming has been practiced, but even they have not realized that the land need not wear out if it is properly managed.

For the first time in the 300 years since settlement began, there is no more virgin land in our United States ready to plow or clear. There are no new frontiers with new opportunities. The future security of the American people depends, henceforth, upon how wisely and how carefully we use the land that we already have. This is because all living things depend directly or indirectly upon the soil—almost wholly, in fact, upon a layer of topsoil that averages only about 7 inches in depth over the United States as a whole.

But soil can wear out and with terrible speed. It washes away and blows when it is stripped of its cover of plants. Once the plants are removed, erosion sets in and the best soil—on top—begins to wash downhill or blow away as dust. We have ruined or severely damaged 282 million acres of land in this way, about 50 million acres of cropland alone having become too depleted for further cultivation.

There is no way of counting the losses caused by erosion. But the total, in terms of duststorms, floods, ruined farms and ranches, bankruptcy, and diminished wildlife has been enormous. It is estimated that current damage by erosion to land, navigable streams and reservoirs, highways, buildings, and other improvements costs the American people about \$840,000,000 annually.

Trees, shrubs, grasses, and other plants form a vegetal cover that holds the soil in place. In this same cover, wildlife lives. Where the vegetal cover is destroyed, soil and wildlife are left unprotected. This fact is the key to soil and wildlife conservation. As soon as a good plant cover is put back on the soil, it stops eroding. At the same time, homes for wildlife are restored. Vegetation is nature's own weapon against soil erosion. Man has found no better one.

Soil conservation is essentially a matter of wise land use and sound farming. Wise land use prohibits the cultivation of steep, erodible slopes and dictates their maintenance in soil-protecting trees or grass. Sound farming may call for the planting of gently sloping fields in strips, laid out on the contour. In these strips, close-growing crops, such as grass, clovers, and small grains, alternate with the clean-tilled row crops, such as corn, cotton, and tobacco.

Sound farming also calls for the stabilization of gullies and the control of streambank cutting by plantings of vines and shrubs and trees that hold the soil.

How may we use land safely, so that crops may be raised, soil may be protected, rainfall be conserved, and wildlife encouraged?

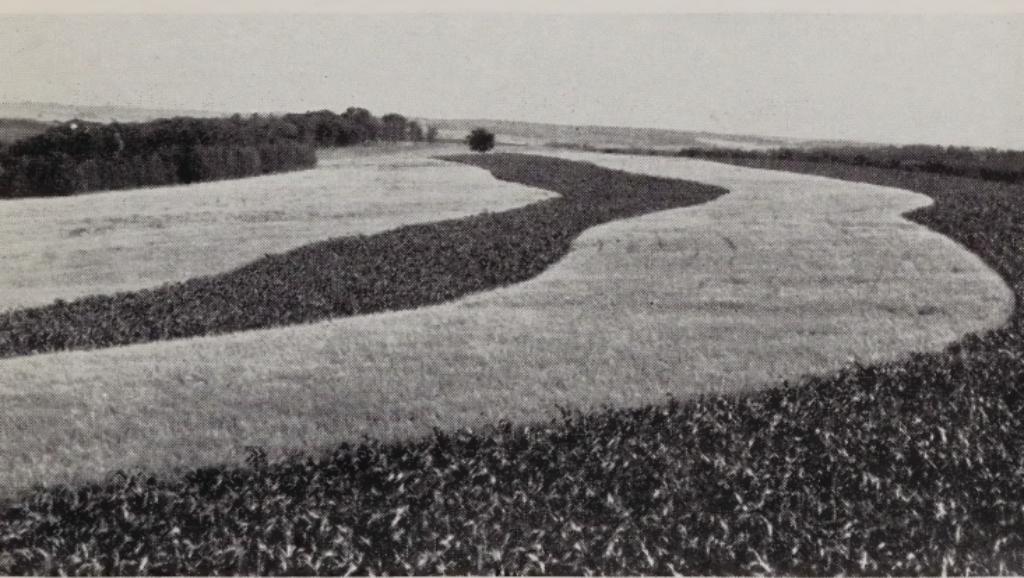
There are many conservation practices that do this:

TERRACES



Terracing prevents soil from washing away. Terraces conserve water and help to keep streams clear of silt—deadly enemy of fish life.

STRIP CROPS



Strip cropping—the practice of alternating bands of cultivated and noncultivated crops on the contour—slows down the washing of soil and conserves water. It also increases wildlife twofold to threefold, because wildlife finds additional cover and food in strip-cropped fields.

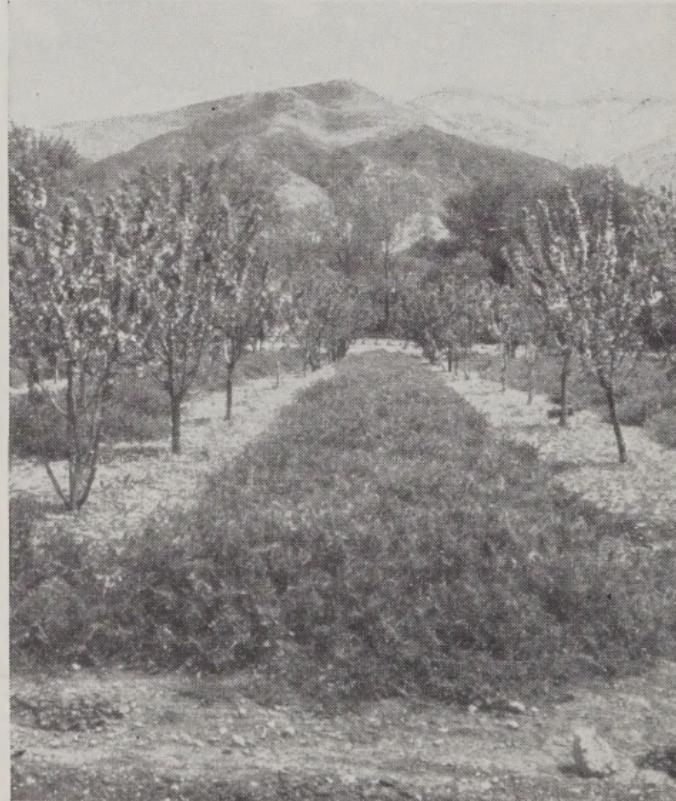
HEDGES



Hedges of close-growing shrubs, across slopes, act as barriers to soil washing and form travel lanes for insect-eating birds. By count, on a New York farm, fields with hedges support 20 percent more pheasants than those without hedges.

WINTER COVER CROPS

Winter cover crops, used to protect the land and improve the soil, prevent erosion during a season when the soil otherwise would be left bare. They furnish succulent material to wildlife when food is scarce.



GRAZING



Control of grazing, keeping the pastures and rangelands in a good cover of grass, prevents soil losses from erosion and maintains soil fertility. It also results in a doubling of wildlife numbers, according to careful counts.

FARM PONDS

Structures such as farm ponds, stock-water reservoirs on rangelands, and irrigation reservoirs, built to store water, help to prevent floods and conserve moisture. If they are protected from livestock by fencing and the banks are planted to trees, shrubs, grasses, and other plants, wildlife, especially water-frequenting birds, will benefit enormously.





WOODLAND MANAGEMENT

Woodland can be managed profitably to produce wood products. Protected from grazing and fire, undergrowth develops, the soil is protected and enriched, wildlife increases. Protected woodlands, in Ohio, have twice as many birds.

GULLIES

Trees, shrubs, legumes, forests, and grasses that protect badly eroded land rebuild depleted soil. If the plants are also selected for their food and cover, the land is soon populated with wildlife.





WINDBREAKS

Windbreaks, designed to prevent strong winds from blowing soil, also serve to encourage wildlife. They are particularly valuable in arid regions where cover is scarce.

EXPERIENCE

Experience during the past 7 years of soil conservation work has demonstrated some important principles that bear upon the entire problem of using our land resources more constructively. It has shown that the soil needs life just as much as all forms of life need the soil. If soil is to be conserved and improved over large areas of land, wildlife will correspondingly be increased.

There is no one panacea for erosion. The land must be treated with specific regard for all the conditions under which erosion takes place. In a complete soil conservation plan for an individual farm, or for a larger area of land, such as a watershed, there should be some provision for retaining land under a cover suitable for wildlife. It may be a few border strips or hedges at the side of the fields, or it may mean the restoration of many acres to a forest of trees and shrubs.

SOIL CONSERVATION DISTRICTS

Just as soil conservation demands the coordination of several practices and techniques, so does the actual carrying out of the job demand the cooperation of many people. It is frequently impossible to treat single farms with complete success because of conditions that are found on the other side of the boundary fence. The job of restoring life to the land can best be done by groups of farmers, landowners, and other interested citizens.



Toward this end, there have been established throughout the United States more than 400 soil conservation districts. Each covering anywhere from a few thousand to a million acres of land, these districts are formed under State laws on the initiative of landowners and operators. Boards of supervisors of the districts, elected from the ranks of local citizens, are able to obtain the help of State and Federal agencies in planning and carrying forward programs to conserve land resources.

The Soil Conservation Service is now concentrating most of its efforts upon work with these groups, assigning technically trained men to the districts and providing other help of appropriate character.

The special importance of soil conservation districts, however, is that they form a local mechanism through which all interested groups can work to promote a better use of the land. The programs of the districts are not limited to introducing better methods of cultivation and grazing. Although these improvements form the core of any soil conservation program, other types of land improvement must also be carried out—such as forestry, reforestation, streambank improvement, and water development. All this work helps to create a better environment for wildlife.



Information about the districts and their work in your State may be obtained from your county agent, or by writing to the State coordinator, Soil Conservation Service, in care of the State agricultural college.



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